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# A new racer of the genus *Platyceps* Blyth from Djibouti (Reptilia: Squamata: Colubrinae)

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**A new racer of the genus *Platyceps* Blyth from Djibouti (Reptilia: Squamata: Colubrinae). -** *Platyceps afarensis* sp. n. is described on the basis of two specimens from Djibouti. The new species is compared with presumed congeneric racers from Eastern Africa. *P. afarensis* is probably most closely related to *P. rhodorachis* auct. The systematics of some East African racers are briefly reviewed.

**Keywords**: *Platyceps afarensis* sp. n. - morphology - systematics - *P. florulentus* group - *P. rhodorachis* - Horn of Africa - Djibouti.

## INTRODUCTION

The racer genus *Platyceps* Blyth, 1860 as understood at the moment of this writing includes, for instance, the *P. najadum* group (*P. collaris, P. najadum, P. schmidtleri*) from the Balkans to Turkmenistan (Kopet Dag), the Sindian type species *P. ventromaculatus* (Gray, 1834), a species complex from the Himalayas to the Hoggar (Algeria) commonly referred to *P. rhodorachis* (Jan, 1863), Arabian endemics such as *P. elegantissimus* (Günther, 1879) and *P. variabilis* (Boulenger, 1905), and the *P. florulentus* group from Egypt to Cameroon and Tanzania.

Three racer species are reported from the immediate African coast of the southern Red Sea, i.e., *Platyceps largeni* (Schätti, 2001), an endemic of the Dahlak archipelago (Eritrea), *P. taylori* (Parker, 1949) from southern Eritrea to NW Somalia and adjacent areas of Ethiopia, and *P. rhodorachis subniger* (Boettger, 1893) from mainland Eritrea and the Dahlak islands to northern Somalia.

A field trip by the junior author to Djibouti in April 1999 resulted in many amphibian and reptile species formerly not recorded from this country including, for instance, *Platyceps taylori* and *Eirenis africana* (Ineich, 2003). Collecting by French military personnel after this expedition procured further reptile species including two racer specimens that are new and which are described in this paper. They are deposited in the Muséum National d'Histoire Naturelle, Paris (MNHN). Morphological terms and definitions used in the following text are explained in Schätti (1988) and Schätti & Charvet (2003).

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***Platyceps afarensis*** sp. n. – Afar racer

*Diagnosis*. Dorsal scales in 21 rows on anterior part of trunk and at midbody, 251-258 ventrals in males (females unknown), 143-144 subcaudals, and 19 maxillary teeth.

*Description of holotype* (MNHN 2001.650, adult male: Arta, Djibouti). Head 2.34 times longer than broad. Frontal 2.29 times longer than width across the lateral projections; 1.16 times longer than median suture between parietals.

Loreal elongate, much longer than high, deeper posteriorly. Nine supralabials, fifth and sixth in contact with orbit, seventh and ninth largest. Preocular single. Anterior subocular preventing fourth supralabial from entering the eye. An additional small scale between the subocular, third and fourth supralabial, loreal, and preocular on left side (Fig. 1). Two postoculars. Temporals 1+3 (right) and 2+3. Ten sublabials, the first five in contact with anterior inframaxillary, sixth largest. Anterior pair of inframaxillaries broader and shorter than posterior; the latter slightly separated anteriorly by two rows of small scales and divergent posteriorly (three rows of elongate scales).

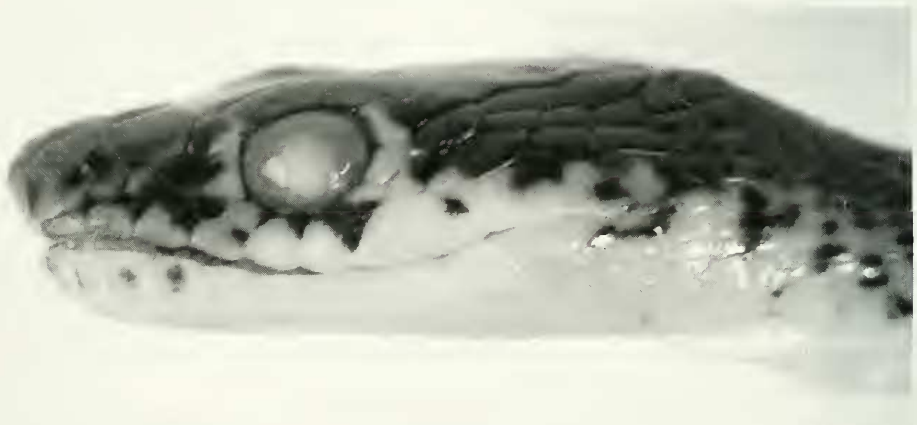

FIG. 1
*Platyceps afarensis* sp. n. Lateral head view of holotype (MNHN 2001.650).

Two preventrals, 251 ventrals; anal scute divided, 144 paired subcaudals. Dorsal scales with paired apical pits; in 21 rows on anterior part of trunk (counted at 20$^{th}$ ventral) and at midbody, 13 in front of vent. Bilateral reduction of dorsal scale rows at ventral 144 involving eighth and ninth (left) and ninth and tenth row (right), 153 (third and fourth and second and third, respectively), 177 (sixth and seventh), and between ventrals 225 and 246 (sixth and seventh row, scalation partly damaged). Total length 1035 (740 + 295) mm.

Pileus (in formalin) dark; supralabials, preocular, and postoculars mostly light; chin uniformly light. Scales on neck and first third of body dark anteriorly, with a fine yellowish-white medial line and light posterior lateral edges. Venter possibly yellowish, with dots; darker dorsal coloration extending to lateral edges of ventrals.

Left maxillary with 17 subisodont teeth, followed by a diastema and two larger teeth (last set off laterad). Basis of hemipenis smooth, followed by fine spines (apical ornamentation unknown).

*Variation in paratype* (MNHN 2001.651, subadult: Arta, Djibouti). Supralabials, preocular, anterior subocular, postoculars, sublabials, inframaxillary scales, and maxillary dentition as in holotype but with a presubocular on both sides. Temporals 2+3; an additional scale between the anterior temporals, the lower postocular, and the sixth and seventh supralabial. 258 ventrals, 143 subcaudals. Dorsals in 21 rows at the 20$^{th}$ ventral and midbody, and 15 in front of anal scute; reduction at ventral 153 (rows 8-10=9), 157-158 (3+4=3), and 186-188 (7+8=7). Total length 437 (320+117) mm. Dorsal coloration brownish (in formaline), venter pearly iridescent.

*Derivatio nominis*. The species is named after the Afar tribe of Djibouti and adjacent regions.

*Distribution*. Both specimens were collected by personnel of the 'CECAP' military site at Arta (11°31'N 42°51'E, approx. 705 m a.s.l.) in 1999 and 2000. The distribution of, and precise ecological information on, *Platyceps afarensis* pend further investigation.

The Arta area comprises three main botanical associations (steppe profiles). *Rhigozum somalense, Acacia tortilis, A. horrida,* and *Balanites rotundifolia* grow along wadis. This vegetation type is characterized by the reduced herbaceous strata due to the arid climat. The arbustive steppe with up to 2 m high *Rhigozum somalense* and *Caesalpinia erianthera* (herbaceous strata sometimes absent) is predominant along hillsides south of Arta, roughly from Ouhea to the Bara depression. The herbaceous steppe (mainly *Cymbopogon schoenanthus*) is found in valleys.

## COMPARISON

*Platyceps afarensis* clearly differs in external morphological features from congeneric species recorded from the area under consideration including *P. florulentus* auct. which has not yet been collected from Djibouti proper.

*Platyceps rhodorachis subniger* (see Systematic Remarks) has 19 dorsal scale rows along the anterior part of the body, 208-228 ventrals, and 112-132 subcaudals (Parker, 1949; Schätti, unpubl.). This racer occurs in the Afar area (e.g., MNHN 2001.649 and 2001.652-653) and sympatry with *P. afarensis* is likely.

Midbody dorsal scale counts of 21-23 are characteristic for *Platyceps f. florulentus* and *P. taylori*. However, these species have distinctly fewer ventrals and subcaudals than *P. afarensis*, up to ca. 230 and 105 or less, respectively, in the former and less than 200 and 100, respectively, in Taylor's racer (Schätti, 1988).

Populations of *Platyceps r. rhodorachis* auct. from Egypt to south-eastern Algeria (Hoggar, Tibesti) and Nubia attain ventral and subcaudals counts similar to those recorded for the new species, i.e., 245-262 and 136-154, respectively (Boulenger, 1893; Anderson, 1898; Kramer & Schnurrenberger, 1963). However, this taxon has only 19 dorsal scale rows along the anterior part of the trunk and at midbody, and there is a geographical gap including most of Sudan as well as Ethiopia and Eritrea separating *P. rhodorachis* auct. from the Afar racer (Schätti & McCarthy, 2004).

Racer species mentioned above except *Platyceps r. rhodorachis* auct. differ from *P. afarensis* in maxillary dentition, viz., 16 or fewer teeth versus 19 in the new species. Morphological difference is even more pronounced between *P. afarensis* and *P. b. brevis* from Somalia with 158-183 ventrals, 80-95 subcaudals, usually 17-19 dorsal scale rows at midbody (rarely 21 in southern populations), and 14 or fewer maxillary teeth (Schätti & Charvet, 2003).

## SYSTEMATIC REMARKS

*Platyceps rhodorachis subniger* (Boettger, 1893) may be specifically different from northern African *P. rhodorachis* auct. (Schätti, 1989; in prep.). The latter populations belong to a new species (Schätti & McCarthy, 2004).

The mainly Afrotropical *Platyceps florulentus* group is considered to be composed of *P. brevis* (Boulenger, 1895), *P. florulentus* (Geoffroy Saint-Hilaire, 1827), *P. largeni* (Schätti, 2001), *P. messanai* (Schätti & Lanza, 1989), *P. somalicus* (Boulenger, 1896), *P. taylori* (Parker, 1949), and a yet undescribed species from Ethiopia (Schätti, 2001; Schätti & Utiger, 2001; Schätti & Charvet, 2003). This cluster is quite heterogeneous as to external morphological characters. *P. somalicus*, only known from the female holotype (Audo Mts., Ethiopia), has solely 15 longitudinal dorsal scale rows at midbody and eight supralabials. *P. florulentus perreti* (Schätti, 1988) from Nigeria and Cameroon with 25 dorsals at midbody and nine supralabials probably deserves species status (Schätti & Utiger, 2001: 922). Supposed plesiomorphic character states (see below) of eastern African racers (*P. brevis, P. messanai, P. somalicus*) and their presumed close relationship to the *P. florulentus* group (Schätti & Charvet, 2003) require re-evaluation as briefly notified by Schätti & Monsch (2004).

A high degree of fragmentation of lateral head scales and other features (e.g., heterogeneous paraventral scale rows) as found in *Spalerosophis* spp. and the monotypic insular endemic *Hemerophis socotrae* (Günther, 1881) may be plesiomorphic conditions. This hypothesis is supported by certain character states of *Coluber* [sensu lato] *zebrinus* Broadley & Schätti, 1999 from Namibia, the terminal taxon of an early evolutionary lineage among Old World racers with nine supralabials, 21 dorsal scale rows, as well as comparatively high maxillary tooth counts (19).

Based on a relatively high number of lateral head scales, ventrals, dorsal scale rows at midbody, and maxillary teeth, *Platyceps afarensis* may be a primitive racer taxon. Additional specimens and further investigations including more characters and molecular data are necessary to establish the phylogenetic relationships of the Afar racer. In spite of the number of dorsal scale rows (21), we are inclined to consider the new species most closely related to *P. rhodorachis* auct. on the basis of overall morphology.

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